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ABSTRACT

Centerville has attempted to enhance personalized education at the high school level by gaining the advantage of small schools, yet having the facilities to house 2,700 students on a single site. The school facility includes a central core and two academic wings. Each of these three units functions as an individual school. The core unit also houses specialized facilities utilized by students from all three units. Ultimately, there will be four schools located around the central core and only activities involving students from all four schools will be offered in the core area. Each of the individual schools has its own administrators, counselors, teachers, food service, and custodial staff. A student is assigned to a unit on a random basis and maintains the assignment through all four years of high school. The appendix includes a site plan, floor plan, planning and construction schedule, and construction costs.
 (Author/MLP)

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A BUILDING and A PROGRAM

The Story of Centerville High School
by: Brooks, Huston, and Overly

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20th-Century High School Educational Program Philosophy

Universal public education is one of the most important foundations of our democracy. Recognition of the worth of each individual is another. Our schools place their greatest emphasis on the development of each child's potential.

Democracy implies privileges, rights, and responsibilities. We provide opportunities for working with others, sharing responsibilities, developing initiative, and assuming accountability for one's own decisions. By providing these opportunities, we give each child an introduction to the knowledge and understanding needed for good citizenship and enriched living.

Since each child is unique, it is essential that the students be provided a stimulating environment with options and alternatives for learning which will lead to self-actualization and will enhance a continuing adjustment to life.

We must help the child develop a positive attitude toward himself/herself, fellow students, school, and the learning process by providing opportunities for a variety of successful learning experiences.

We believe that the individual child shall have in his/her school years those experiences which result in the basic knowledge, skills, and attitudes necessary to become a responsible and contributing citizen. Beyond these, we believe that the schools shall provide an environment that encourages students to reach and build their self-respect, interests, enthusiasm, creativity, motivation, trust, cooperation, and capacity to realize joy.

We recognize the need for systematic change to meet the challenge of a changing society. Systematic change requires planning, experimentation, evaluation, and consistent adjustment as well as past successes and incorporation of new ideas. We believe that such a system of dynamic change can only progress in an atmosphere of open communication and trust, in which all concerned parties are encouraged to express their views at all times, and in which diverse views are freely brought forth for discussion.



DESIGNED FOR LEARNING

The Centerville High School* was designed for learning. It is apparent to anyone visiting the school that the learning desired at Centerville High School is a personalized, humanized style of education.

Although the Centerville system has progressed beyond two individuals sitting on opposite ends of a log, the concept of individual contact as a key to the learning environment has been paramount in the development of the high school. The learning program, and the facility developed to house it, was created in an attempt to meet the learning needs of individuals. Personalized education is the keynote focus.

DESIGNED FROM THE BEGINNING

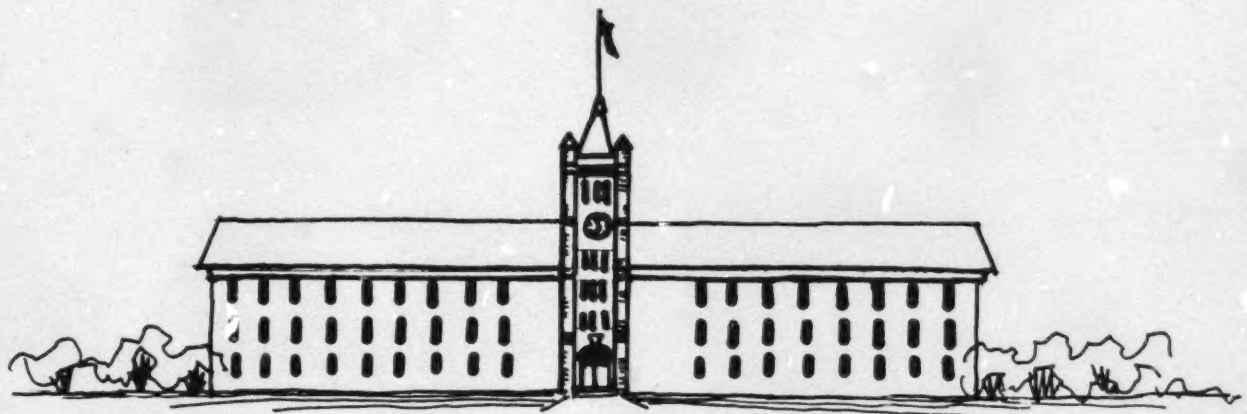
From the very beginning, Centerville High School was thoroughly planned and designed. Neither chance, tradition, nor personal whim, but rather careful consideration was the decision making mode.

The planning began early with the development of a school philosophy. This statement of educational direction concentrated on the theme "each child is unique". It expressed the desires of the community and provided a focus for all future planning. This philosophy offers some insight to the beliefs behind the development of Centerville's unique and attractive building.

* Centerville High School is located in Centerville, Ohio. The building was occupied in September 1973. Included in the Appendix is information related to construction such as, construction timetable, cost, and floor plans.



LARGE SCHOOL VS SMALL SCHOOL



4



3,600 PUPILS + HUMANIZED LEARNING

SMALL SCHOOL CONCEPT



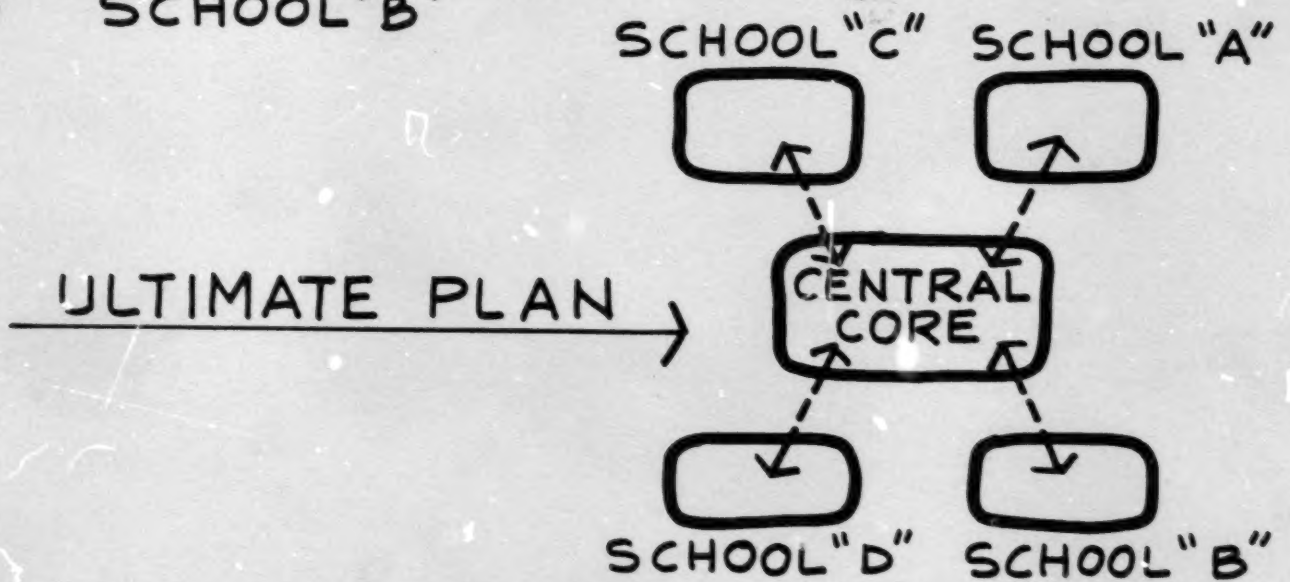
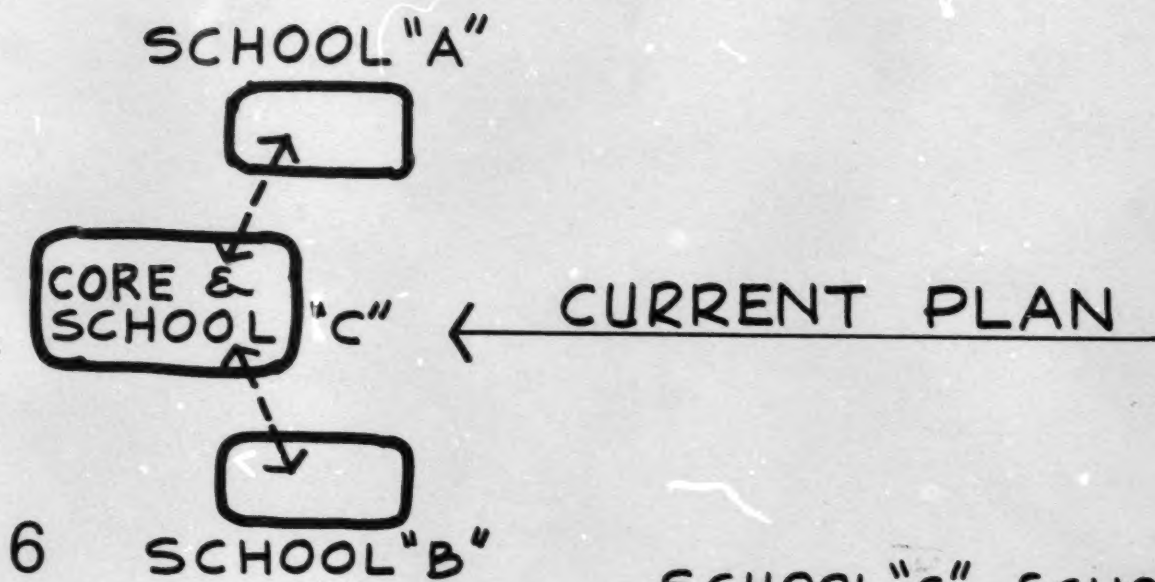
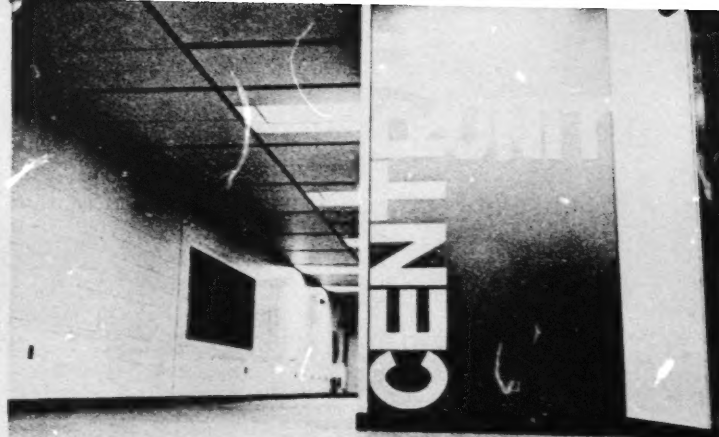
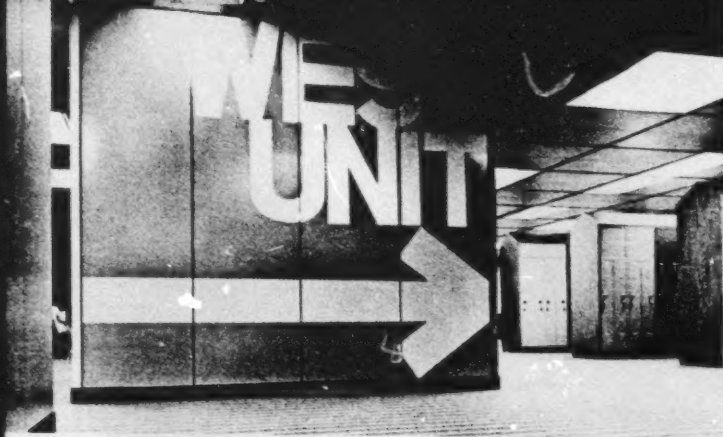
Next, the educational specifications for the building were developed using the input of staff and community members, coupled with the expertise of consultants from the architectural firm. These specifications served as an agreement between the community and the architect that helped to insure the design and construction of a building to meet the identified needs of students.

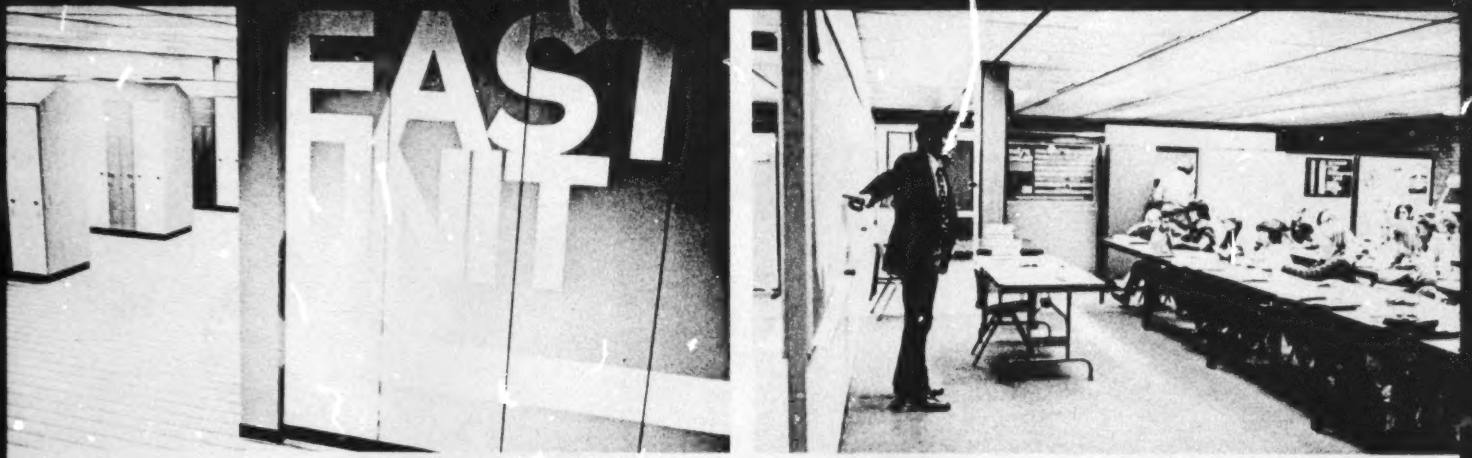
Throughout the development of educational specifications and creation of actual plans, the philosophy of personalized education was uppermost in importance.

DESIGNED TO CAPTURE THE ADVANTAGES OF BOTH A LARGE SCHOOL AND A SMALL SCHOOL

There are several options available to attempt to personalize education. Probably the most obvious is the overall design of the facility. With a current enrollment of over two-thousand four-hundred, and a projected enrollment in the foreseeable future of over three-thousand, the dilemma of the large school versus several small schools was apparent. The answer in Centerville was to develop a solution that would gain the advantages of both alternatives.

A school to house twenty-seven hundred students was desirable from several points of view. Administratively, it is probably desirable to keep all high school facilities on a single site. This is particularly true for custodial care, transportation, maintenance, and food service operations. Educationally, the degree of specialization that is possible in both staff, facilities, and course offerings is certainly enhanced by a larger student body. Nine-hundred





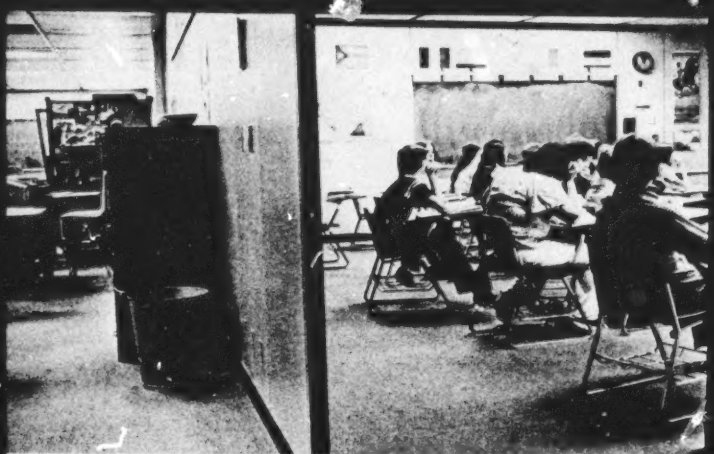
students is large enough for curriculum and services, yet small enough for close contacts between faculty and students.

From a community perspective, maintaining a single high school has advantages in terms of identity and continuity. Community support and interest are obviously solidified with a single site.

However, there are also advantages to small schools. Administratively, control may be greater in schools where the opportunity to personally know the majority of the students is more realistic. Educationally, it is certainly desirable to have a small enough facility that staff and students can gain some familiarity with each other during the four year high school experience. Socially, students are able to form a more close knit relationship with fellow students when the total population is sufficiently small that interaction among the population is realistically possible.

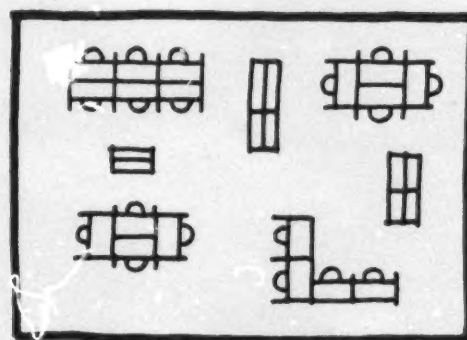
Given the advantages of both large schools and small schools, a "small school concept" organizational plan was implemented in an attempt to obtain the best of options. All of Centerville High School is located on a single site. The facility that was eventually developed includes a central core and two academic wings. Each of these three units functions as an individual school. The core unit also houses those specialized facilities utilized by students from all three units. Ultimately, there will be four schools located around the central core. At that time, only activities involving students from all four schools will be offered in the core area.

Each of the individual schools has its own administrators, counselors, teachers, food service and custodial staff, and student

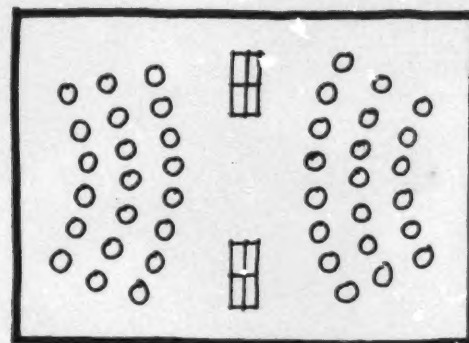


SPACES CAN BE :

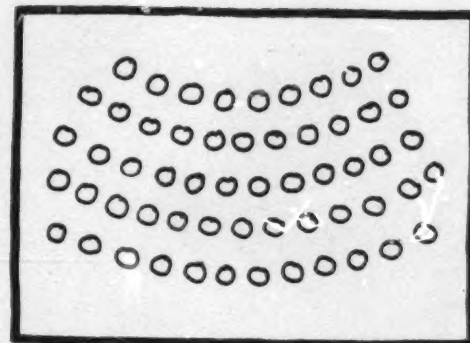
INDIVIDUAL

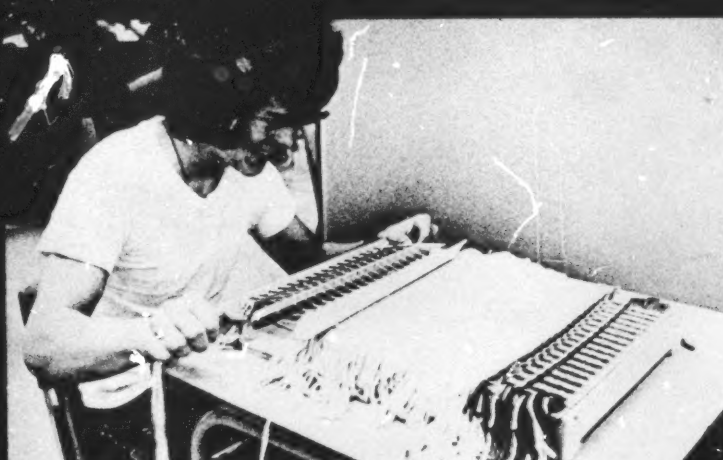


8 SMALL GROUP



LARGE GROUP

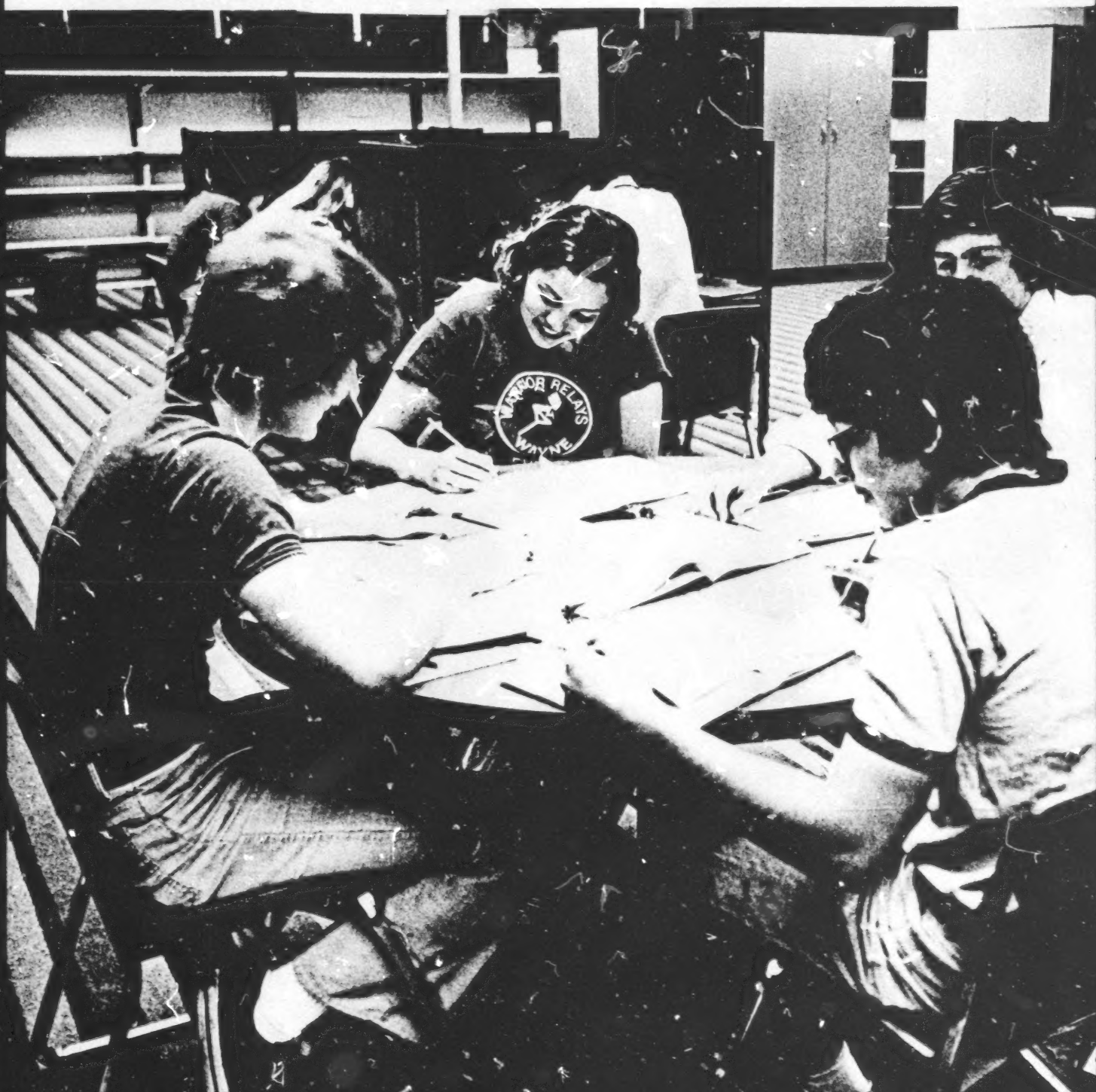


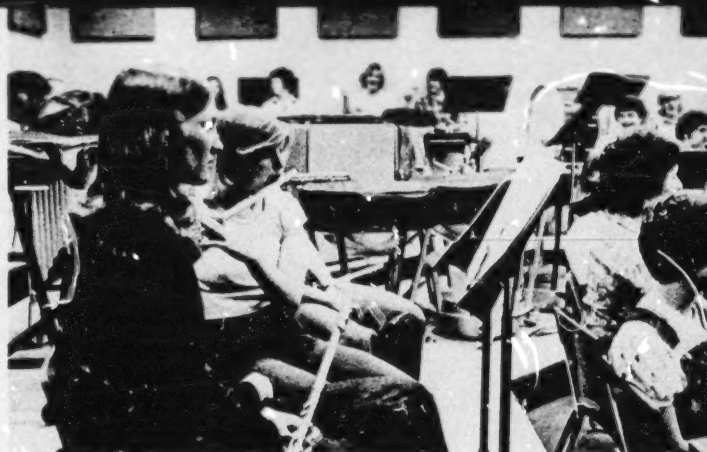


body. A student is assigned to a unit on a random basis and maintains that assignment through all four years of high school. Each school has developed its own identity and has flexibility in terms of many of the decisions related to the school. Insofar as desirable and possible, each school operates as an independent unit.

In the central core are highly specialized classes such as advanced foreign language, vocational offerings, advanced laboratory science offerings, and physical education. The amount of specialization possible is extraordinary. As a result, with the number of students that can be drawn upon for course offerings, Centerville High School is able to offer approximately two-hundred different courses in a given academic year. Also located in the core are sophisticated, expensive areas that would not be possible in a school of eight or nine-hundred. Such areas include advanced science labs, a large spectator/teaching gymnasium, and a little theatre.

Centerville has attempted to enhance personalized education at the high school level by gaining the advantage of small schools, yet have the concentration of students on a single site.





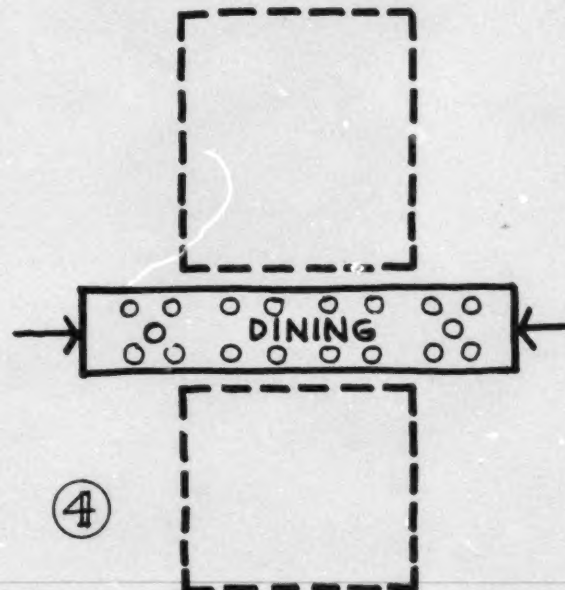
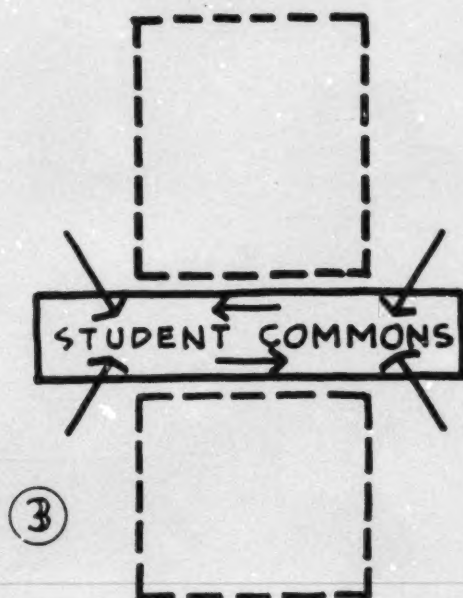
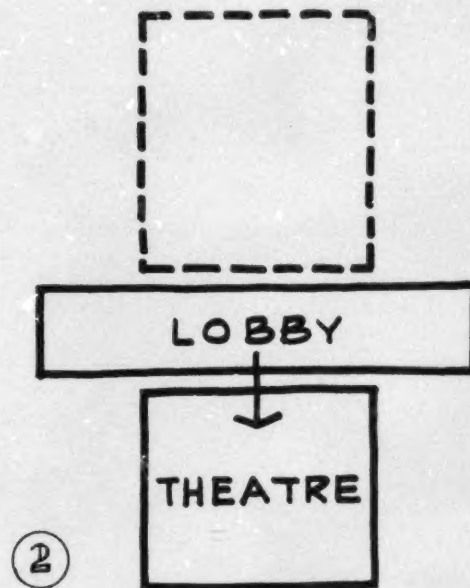
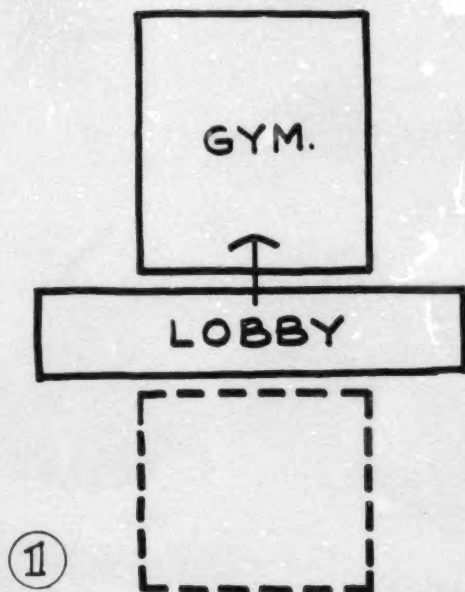
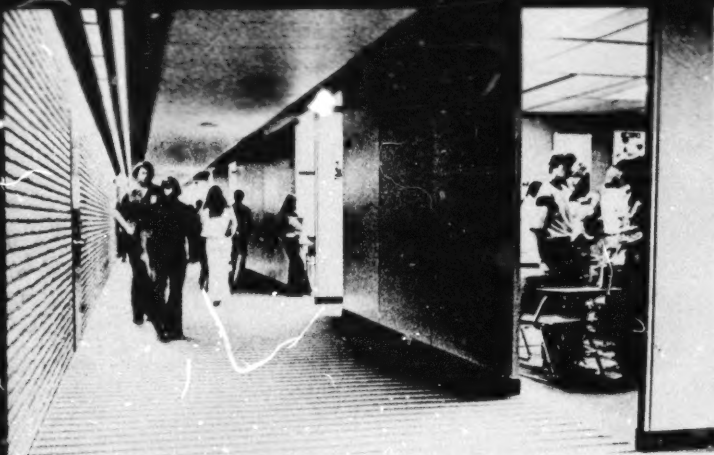
DESIGNED FOR VARYING GROUP SIZES

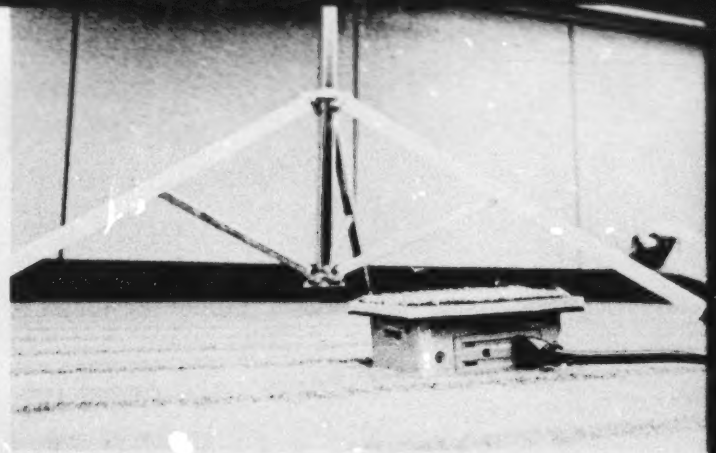
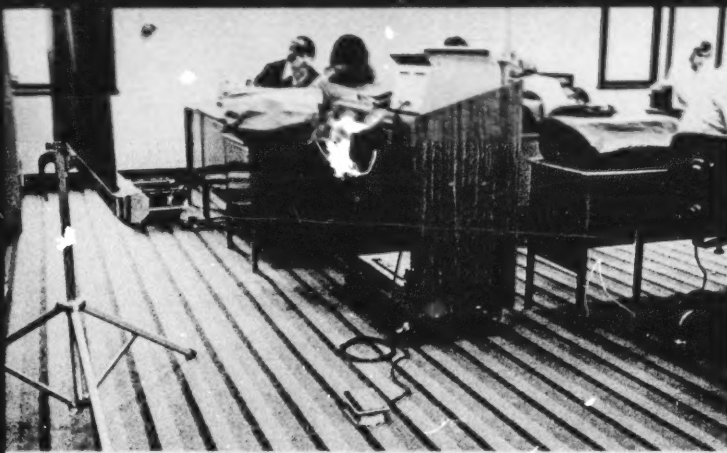
In order to most effectively meet the needs of students, opportunities must exist for individual, small group, and large group activities. Within Centerville High School this desirable feature is achieved in several ways.

Some areas are available for individual work and designed solely for that purpose, such as study carrels, small speech practice rooms, and music practice rooms. Other areas are designed essentially for small group work, such as conference rooms and larger music practice rooms. Some areas are designed for large group use, such as spectator seating in the gymnasium, the band room, and the little theatre.

In addition to those areas that are specifically designed to accommodate individual, small group, or large group work, many areas of the building are intended to remain flexible. That is, they are designed to allow, at varying times, different size groups of students to function effectively. This is best illustrated by the relatively open areas, such as in social science and language arts. These areas can be reallocated for use by different size groups with the simple relocation of easily movable space dividers and furnishings. In addition, these areas were developed with sufficient acoustical control to allow groups to work in adjoining areas with little, if any, distraction.

Another illustration of adaptability for varying group sizes is furnishings. For example, trapezoidal tables are used throughout the building. These can easily be arranged to accommodate a





small group in a circular seating pattern or set up in rows to accommodate a large group for demonstration or lecture purposes.

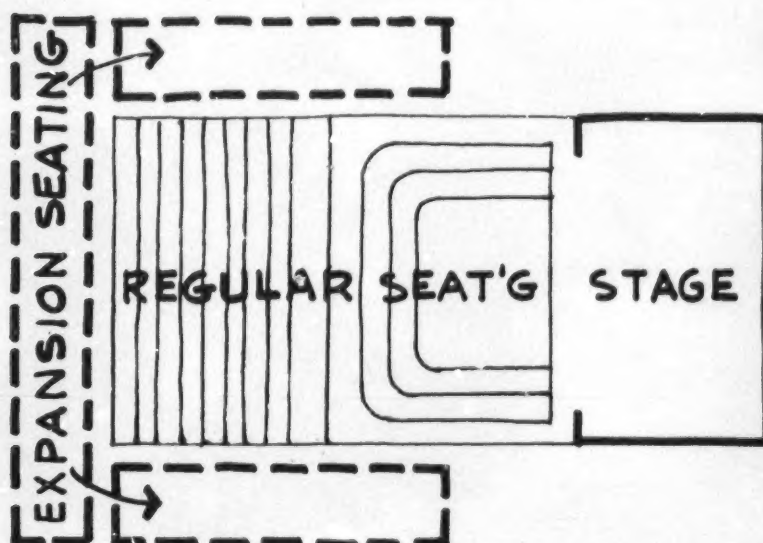
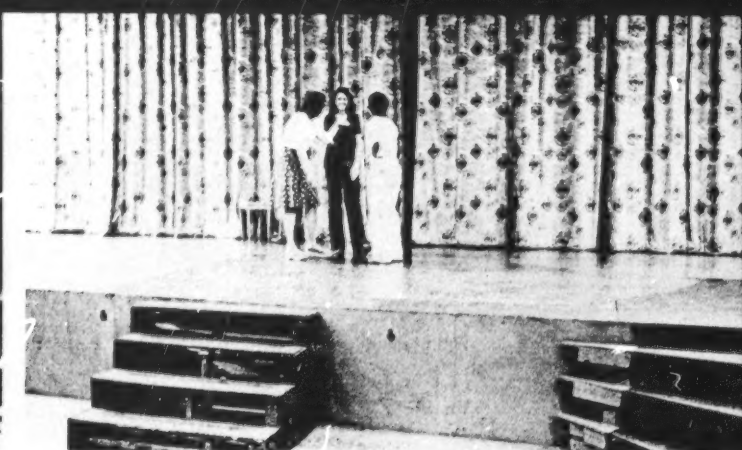
One aspect of meeting student needs efficiently is the capability to experience a variety of group sizes as the learning experience dictates. At Centerville High School this is not only possible, but is encouraged and happening.

DESIGNED FOR MODERN TECHNOLOGY

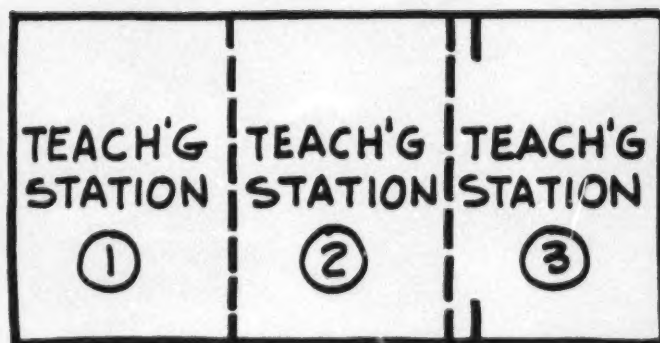
In an effort to keep pace with the demands placed upon education, an array of technological advances have been developed in recent years to assist in the learning process. Centerville High School was designed to take advantage of these technological advancements.

Located within the media center are carrells equipped to allow students individually to experience a wide range of media including tape recordings, films, and film strips. This allows a student to receive remedial help that is supplementary to the regular instructional program, to receive experiences in an enrichment exercise beyond that available in the classroom setting, or even to listen to presentations made during the student's absence.

Another illustration of the use of technology is the wireless systems utilized in areas housing foreign language and business classes. These wireless systems allow the student in either subject area to be self-paced and to work individually. The wireless systems used in Centerville involve some basic installation in the



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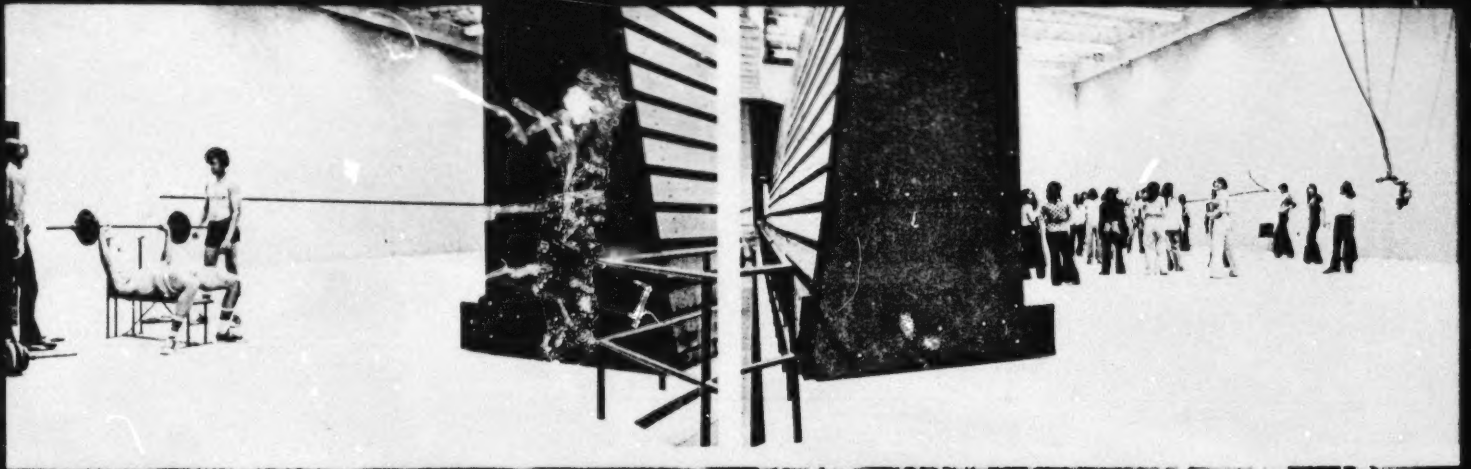
area which is permanent and inexpensive, supplemented by a rather costly console that can easily be relocated from one area to another as needed. The flexibility and capability available with this approach is outstanding.

Other applications of technology would include the installation of provisions for cable television throughout the facility and the development of specialized areas for the production of video tapes by teachers or students. While the teacher must remain the key to effective education, the thoughtful utilization of educational technology available today enhances the educator's ability to achieve meaningful, personalized learning.

DESIGN FOR MULTIPLE USE OF SPACE

There are a number of areas in Centerville High School where the utilization of space was considerably enhanced by multiple usage. The lobby area between the little theatre and the gymnasium serves four different, and rather distinct, functions.

1. For activities centered in the gymnasium, it serves as a large lobby area and concession stand with ample access to the available parking on either side of the facility.
2. When the little theatre is in use, the lobby serves a similar function oriented to that facility.
3. During the school day, this space is utilized as a student commons.
4. At the noon hour, the lobby is an eating area serving a Type A lunch, as well as providing a snack bar. Preparation of snack bar foods is accomplished in the concession





area and Type A lunches are prepared in the central commissary.

The little theatre also illustrates the multiple use of space. As a small theatre, this facility accommodates several hundred people, for the total range of theatre productions. The capacity of the small theatre, however, can be expanded simply by opening folding walls and use of temporary seating in the adjacent corridors. This is particularly effective for speaking engagements. During the school day, this facility can be effectively divided into three teaching stations by two folding walls. Two of the teaching stations are excellent for large group presentations and the use of visual material with large groups. The third teaching station is the stage area which is often effectively utilized for the preparation of sets for theatrical productions.

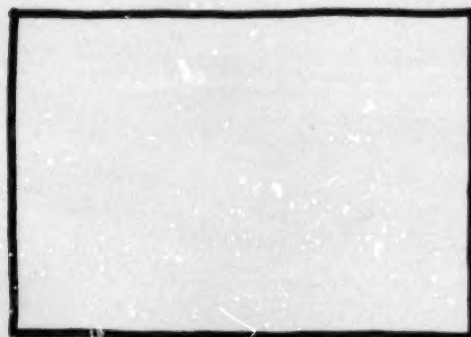
A last illustration of the multiple use of space is in the gymnasium. All of the seating in this gymnasium can be retracted, allowing the total square footage to become physical education teaching stations. Further, the bleachers in the balcony area can be retracted toward the playing surface of the main gymnasium, creating safe isolation of the balcony area into adequate physical education teaching areas.

In these and other situations at Centerville High School, every effort was made to provide for maximum use of all available space. This adaptability within the building creates learning possibilities that would not otherwise be possible.



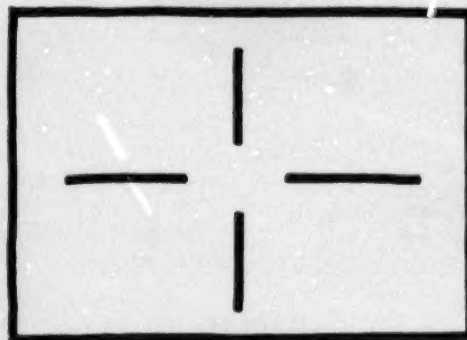
THE SAME SPACE CAN BE :

- COMPLETELY OPEN

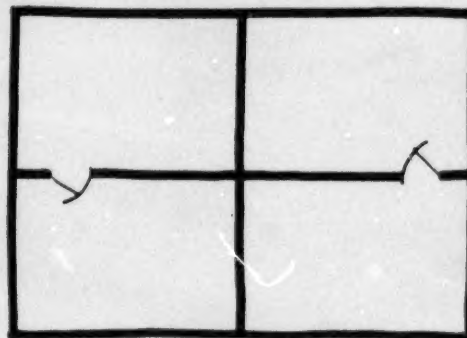


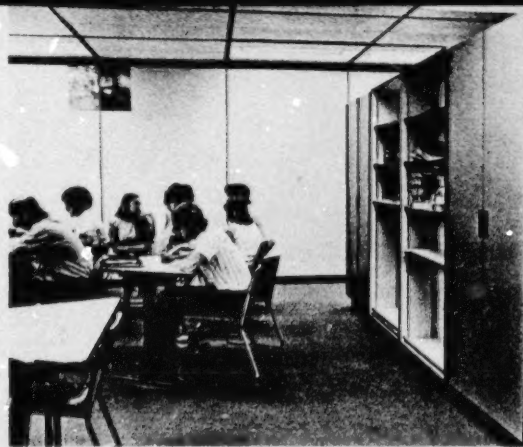
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- PARTWAY OPEN



- CLOSED ROOMS





DESIGNED FOR LONG-TERM FLEXIBILITY

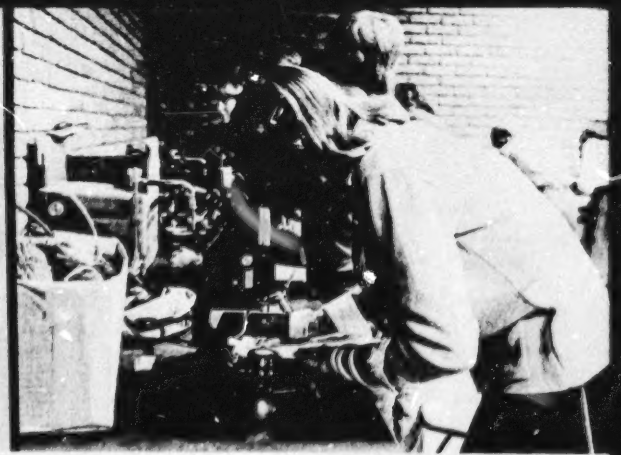
In addition to planning for varying group sizes, Centerville High School was designed to provide long-term flexibility. Every effort was made to reduce the amount of space designated for a committed use to the absolute minimum. The flexibility desired was accomplished through careful choice of the floor surfaces, the use of demountable walls, and special consideration of the lighting installation.

As the building was constructed, the floor coverings were installed under all demountable walls and furnishings including semi-fixed furniture, such as sink cabinets and large storage cabinets. Color fast and fade resistant floor coverings were used so that future relocation of walls or equipment would not be hampered by any problems with the floor surfaces.

On top of these floor surfaces, demountable walls were used throughout the building. These demountable walls, in both 30 inch and 60 inch sections, can be relocated without damage to either the ceiling or the floor covering. This relocation can be easily accomplished by trained maintenance staff. In order to allow ease of relocation of demountable walls, heating vents are installed on flexible duct which would allow a heating vent to be relocated anywhere in the suspended ceiling. Similarly, lighting fixtures are on a flexible cable so that they may also be simply relocated anywhere within the suspended ceiling.

The result of all this flexibility planning is that the majority of space in the building could be completely open or could be divided





into self-contained classrooms with minimal expense and effort on the part of the school district and personnel. While these changes would not be made overnight, they could be made during holiday breaks or the summer recess. The overall objective was to commit as few areas as possible by minimizing the use of rigid, permanent wall installations.

DESIGNED FOR PROGRAM

Centerville High School was designed to implement a philosophy and a program. It is difficult to capture a living philosophy on paper. One way is through an illustration.

The teacher-advisor program at Centerville is illustrative of the total program concept. It has been developed and implemented systematically and is easily accommodated by the flexible facility.

The goal of the advisory program is for every teacher, counselor, and administrator to meet with a group of fifteen to twenty students on a daily basis. In addition to daily contact, bi-monthly meetings are pre-scheduled so an advisor will have the opportunity to conduct interpersonal activities calculated to encourage knowing each other better.

The teacher-advisor program goals express a feeling of personal caring and concern. It allows at least one teacher to know each student very well outside the traditional content-oriented classroom setting. Such a relationship is helpful in developing short and long-range plans with students and also contributes to a harmonious peer group.



The teacher-advisor program is typical of the orientation of Centerville High School.

IN SUMMARY — DESIGNED FOR STUDENTS NEEDS TODAY AS WELL AS IN THE FUTURE

Centerville High School was designed for students. Every effort was made to achieve, within reasonable costs, a building that would allow implementation of a learning program desired for students today as well as for students in years to come. The pictures on these pages are primarily of youth . . . and in the final analysis, that is what education is all about.

APPENDIX

A — SITE PLAN

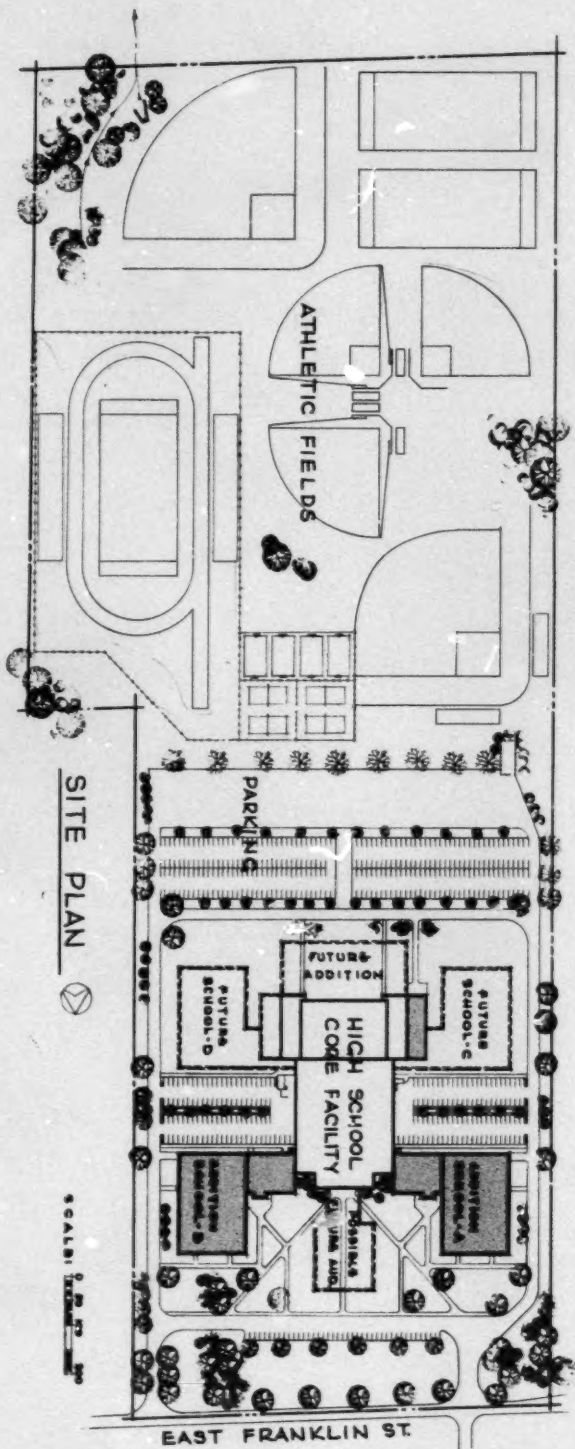
B — FIRST FLOOR PLAN

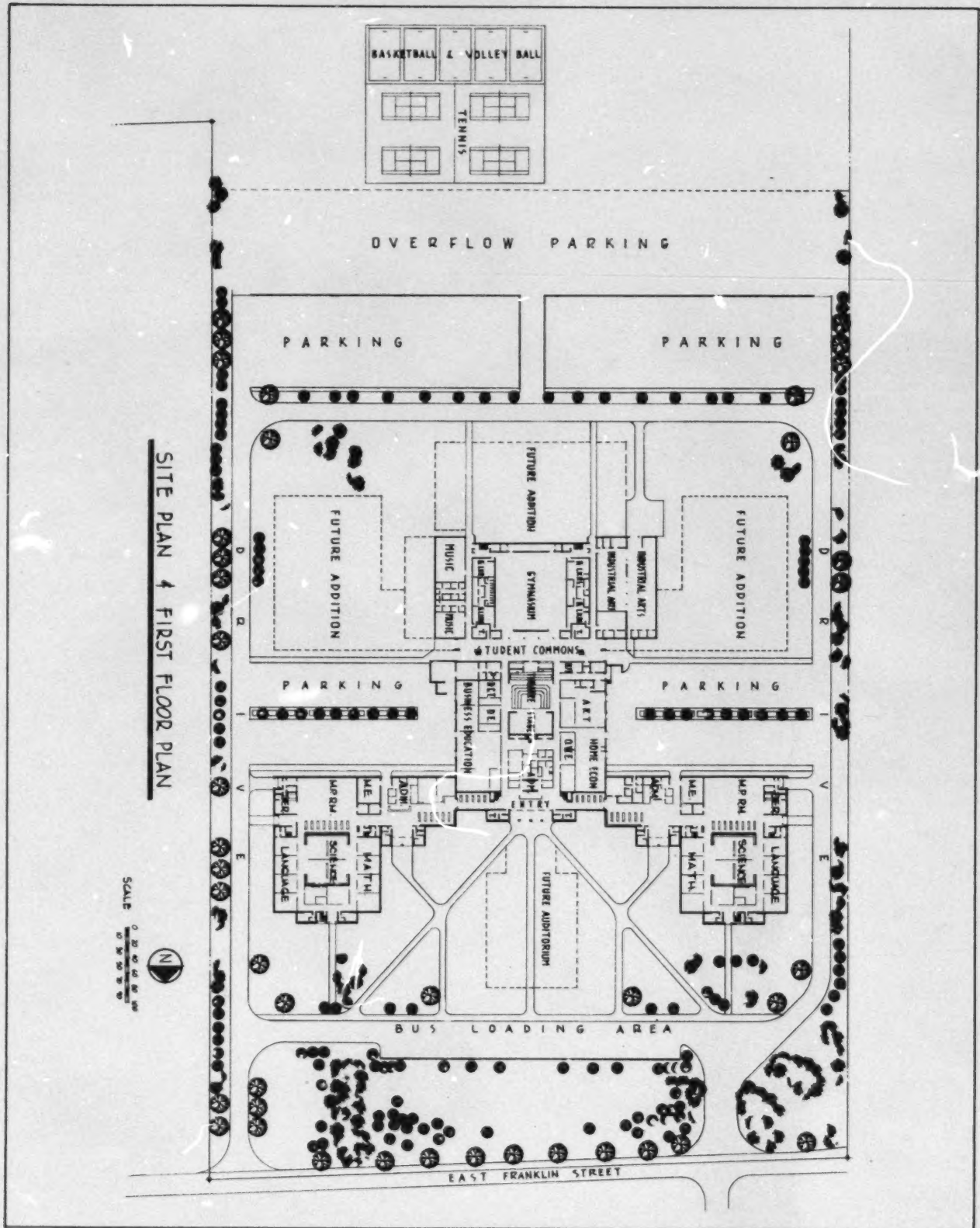
C — SECOND FLOOR PLAN

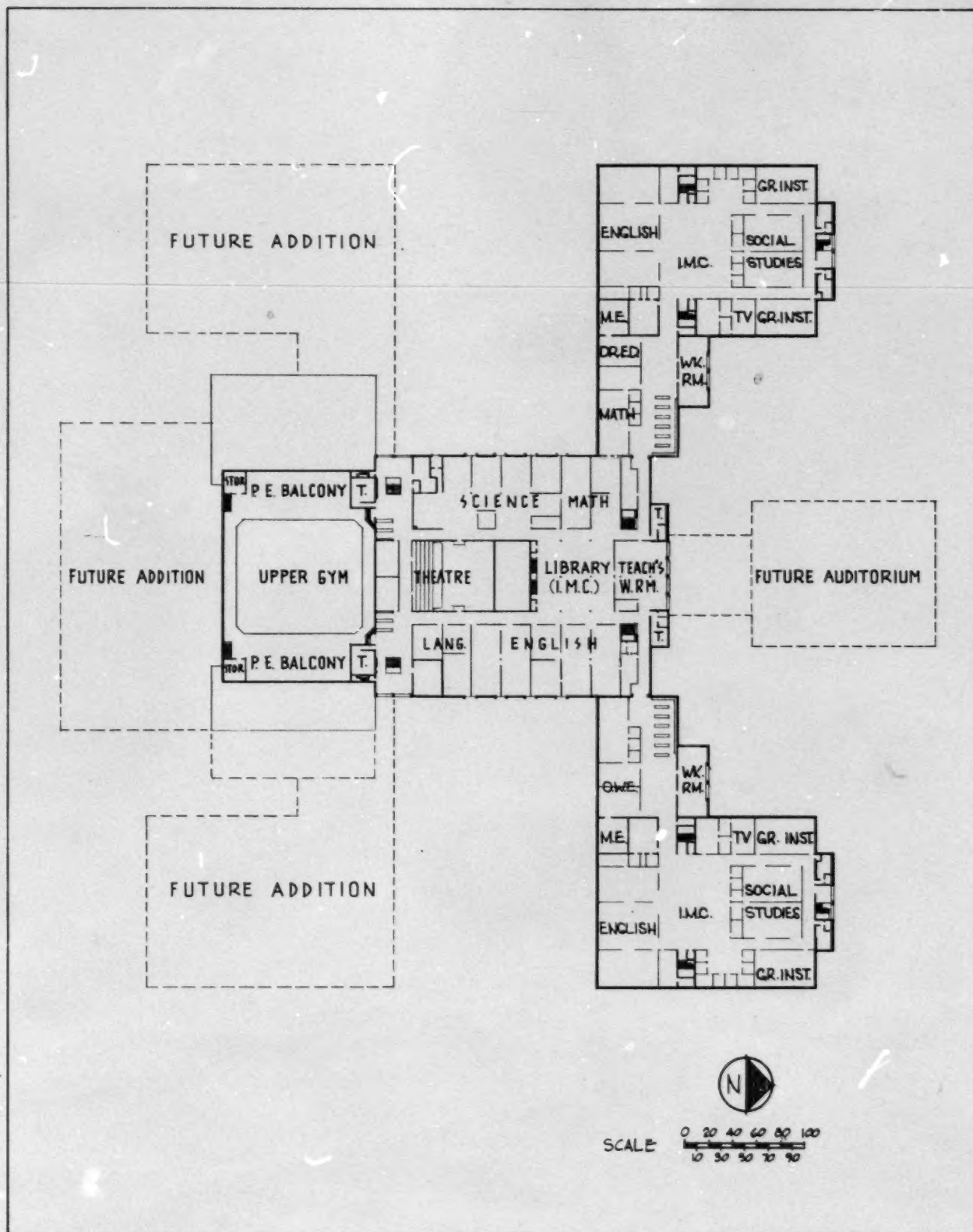
D — PLANNING AND CONSTRUCTION SCHEDULE

E — CONSTRUCTION COSTS

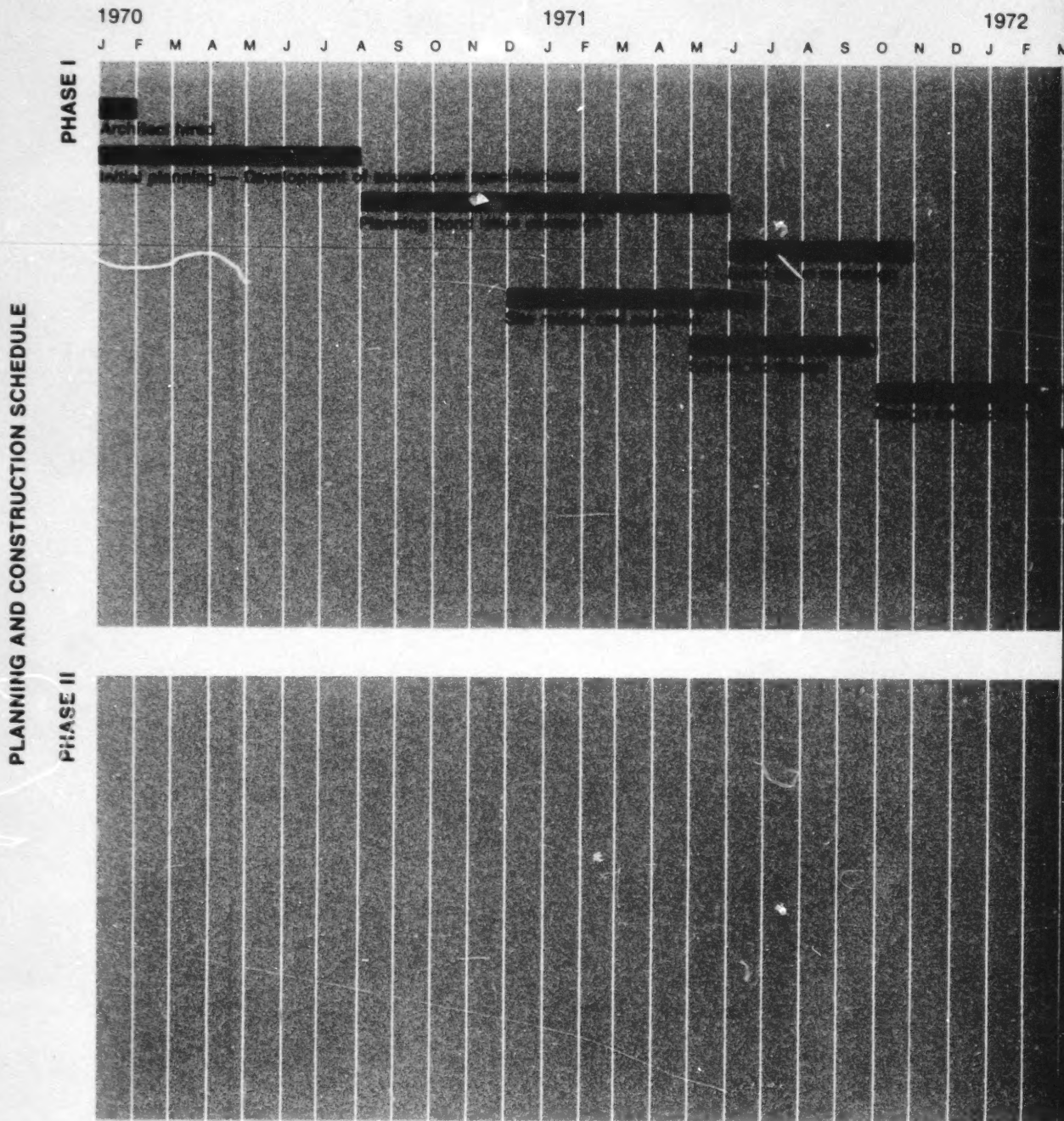








APPENDIX D



1973

1974

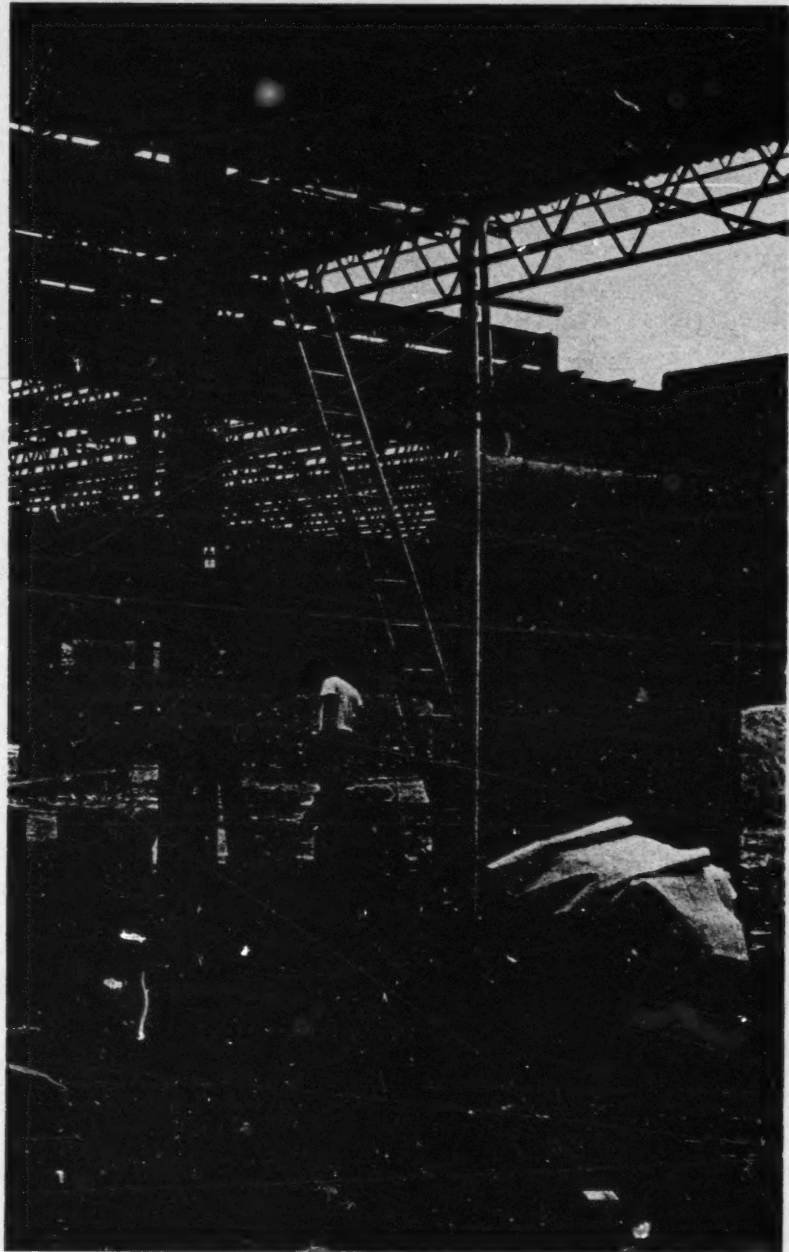
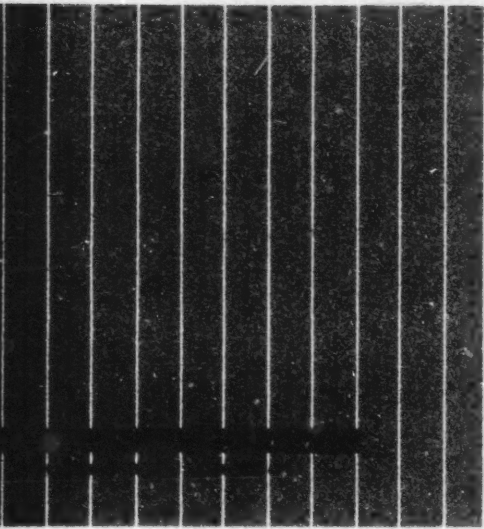
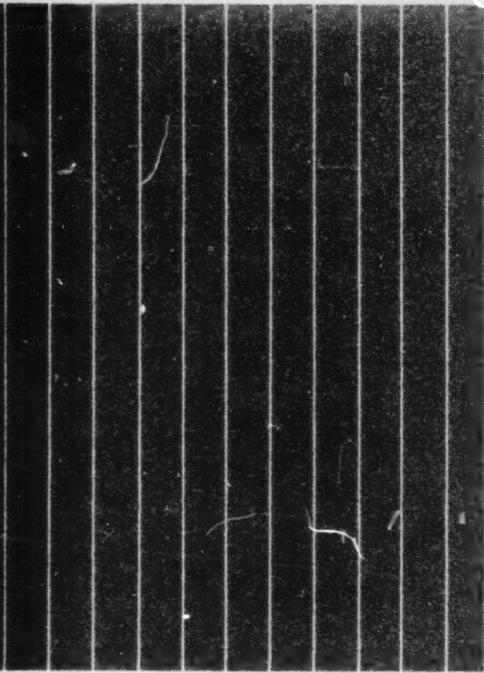
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Continued overleaf

PLANNING AND CONSTRUCTION SCHEDULE

1975

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**PLANNING AND CONSTRUCTION
SCHEDULE** *(continued)*

CONSTRUCTION COSTS

Site (60 acres)	\$ 300,000
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Phase I

General Trades	1,593,320
Plumbing, Heating & Ventilating	510,400
Electrical Trades	417,233
Site	190,088
Furniture & Equipment	628,425
Total	\$3,339,526

Square Footage Cost (AIA Document D-101) \$17.36

Phase II*

General Trades	\$1,987,500
Plumbing	235,980
Heating & Ventilating	452,700
Electrical	449,000
Total	\$3,125,180

Square Footage Cost (AIA Document D-101) \$21.08

** Phase II was furnished and equipped primarily with existing furnishings relocated within the school district.*





AUTHORS

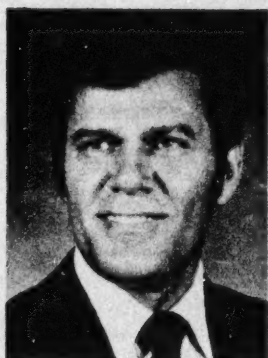
Dr. Kenneth W. Brooks

Dr. Brooks is currently an educational Consultant with Huston Associates. His training was in education, receiving a Bachelor of Arts at the University of South Florida, a Master of Arts at Louisiana State University, and a Doctor of Philosophy from Ohio State University. He is a member of the American Association of School Administrators and the Council of Educational Facilities Planners. He has contributed to the CEFP Journal, Curriculum Trends, Planning and Change, Educational Technology, and American School and University. Before joining the architecture, engineering and planning firm, Dr. Brooks was an Administrator with the Centerville City Schools.



Mr. Bruce Huston

Mr. Huston founded the firm of Huston Associates in 1950. The firm specializes in educational facilities and has completed numerous school projects over the last twenty-five years. Mr. Huston is a Registered Architect and a member of the American Institute of Architects, National Panel of Arbiters of the American Arbitration Association, and the Council of Educational Facilities Planners.



Dr. Donald Overly

Dr. Overly is Superintendent of Schools for the Centerville City Schools. He has been Superintendent for five years and a part of the Administrative Staff since 1968. Dr. Overly received a Bachelor of Science from Ohio State, a Master of Science from the University of Dayton, and a Doctor of Education from Indiana University. Dr. Overly has contributed to several journals and co-authored *The Middle School: Humanizing Education For Youth* published by Charles A. Jones Publishing in 1972. He recently completed a series of booklets entitled *Current School Concerns: A Case Study Approach For School In-Service* published by School Management Institute. The series included booklets on "Student Involvement," "The Process of Change," "Teacher-Learner Relationships," "Curriculum," "Evaluation of Students," and "Discipline."